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2012-05

Today@NPS / May 2012

Monterey, California : NAval Postgraduate School

<http://hdl.handle.net/10945/34038>



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Today@NPS showcases some of the speakers, conferences, experiments, lectures, and other events that take place at the Naval Postgraduate School on a daily basis. If you would like more information about any of the highlighted activities please contact the public affairs office at pao@nps.edu. To view more stories visit the [Today at NPS archive](#). NPS' photo galleries and graduation pictures can be found on the [Photo Gallery - Collections page](#).



U.S. Navy photo by MC1 Leonardo Carrillo

Retired Flag, Industry Executive Receives NPS Distinguished Alumni Award

MC1 Leonardo Carrillo

Retired Rear Adm. Michael G. Mathis receives the Naval Postgraduate School Distinguished Alumni Award from NPS President Dan Oliver, May 25. Before his award ceremony, Mathis gave an update presentation on the Standard Missile-3, Block IIA Ballistic Missile Interceptor Program.

Mathis discussed some of the science and technology issues with missile interceptors, as well as the current capabilities and challenges the SM-3 Block IIA program is facing. He held an open discussion to address these issues with students and faculty, with some of the issues discussed involving topics such as critical technical design issues in weapon systems, cost, reliability, and performance tradeoffs.

A 1983 graduate of NPS, Mathis held multiple assignments throughout his career including service as Director of the Joint Air and Missile Defense Organization. After he retired in 2006, Mathis served with defense industry giant Raytheon as the Director for the SM-3 Block IIA Ballistic Missile Defense Interceptor co-development program with Japan.

During the presentation of the award, Oliver noted that Mathis was a perfect fit for the honor. "At NPS, the quality of our product is the direct result of the quality of our faculty," said Oliver. "The proof of that quality is in our alumni."

Saudi Ministry of Defense Representatives Explore NPS

MC1 Rob Rubio

A delegation of six senior officers from Saudi Arabia's Ministry of Defense along with NPS representatives gather for a group photo on the steps of Herrmann Hall, May 24. The Saudi delegation visited NPS to learn more about the university's curricula, Joint Professional Military Education programs, and short course opportunities.



U.S. Navy photo by MC1 Rob Rubio

The trip to NPS was a reciprocal exchange to a visit that took place in Riyadh, Saudi Arabia, in April 2012, targeted to promoting U.S.-Saudi security cooperation and identifying ways to enhance educational opportunities for Saudi military officers. The U.S.-Saudi initiative has been sponsored and supported by the Vice Provost for Special Initiatives (VPSI) and Dean of the Graduate School of Operational and Information Sciences, Dr. Peter Purdue. VPSI activities aim to expand, strengthen and coordinate NPS' outreach and international initiatives throughout the combatant commands (COCOMs), all of which contribute greatly to attracting international students to NPS resident programs.

Currently, six officers from the Royal Saudi Navy are enrolled as full time, in-resident, master's students at NPS. Saudi Arabia is considering sending additional students to the university in 2013.

**First Army Deputy Commanding Officer Helps NPS Graduate One of His Own**



U.S. Navy photo by Javier Chagoya

Maj. Gen. Mark MacCarley, Deputy Commanding General-Support for First Army, presides over an intimate and informal 'graduation' ceremony for the Graduate School of Business and Public Policy's Cost Management Certificate Course, May 25. Sponsored by the Office of the Deputy Assistant Secretary of the Army for Cost and Economics, the four-week program prepares students to support improved cost measurement, management and control efforts.

"I'm impressed with the enthusiasm you all showed during your presentations this morning," MacCarley said to the small group of eight certificate graduates. "It just shows the gumption that you all have to advance yourselves in your profession." MacCarley actually knew one of the students well, coincidentally, as a member of his own staff participated in the certificate course. MacCarley's visit to NPS included learning more about the certificate program, in addition to detailed briefings on the students' final projects, and his participation in the ceremony.



U.S. Navy photo by Javier Chagoya

Prominent Science Publication Features Two NPS Faculty

NPS Public Affairs Staff Report

The efforts of Naval Postgraduate School (NPS) Operations Research Professor Moshe Kress, right, and Global Public Policy Academic Group Assistant Professor Karen Guttieri, left, were featured in the May 18 edition of the American Association for the Advancement of Science's "Science" journal, a leading scientific research and news publication.

Kress' article, titled "Modeling Armed Conflicts," reviews quantitative approaches to modeling military operations, threat situations, and force structure. The piece reviews historical, classical, present and future armed conflict models, including the dynamics of today's insurgencies. He believes this article is an opportunity to present to the public the scientific side of military and defense affairs.

"To the best of my knowledge, this is the first military or defense operations research article published by 'Science,'" said Kress. "I am honored to have this distinction and hope my article helps usher in additional operations research contributions to this journal."

"Science" also featured Guttieri's efforts in an article titled "Understanding Minds to Win Over Hearts," which highlighted her effort to model conflicts and study how lawlessness and weak or destabilized governments affect the behavior of their populations. Her efforts in teaching 12-week civil affairs and psychological operations courses were also noted in the article.



U.S. Navy photo by Javier Chagoya

NPS Welcomes SHAPE Chief of Staff Gen. Manfred Lange for Briefings, SGL

Amanda D. Stein

Chief of Staff of the Supreme Headquarters Allied Powers Europe, German Air Force Gen. Manfred Lange, offered a Secretary of the Navy Guest Lecture to students, faculty and staff, May 22. Fresh off a campus tour and briefings, Lange noted that he was impressed with the range of work being done in the various departments across campus.

During his SGL, Lange spoke about the objectives of the 2012 NATO Summit, being held that same day in Chicago, Ill. He explained that global security challenges of today are different than those of the past, and that the solutions will not happen overnight. He focused extensively on global security, and the role that NATO plays in helping partner countries promote security and stability.



U.S. Navy photo by Javier Chagoya

Secretary of the Army Visits Naval Postgraduate School

MC1 Grant P. Ammon

NPS President Dan Oliver meets with Secretary of the Army John McHugh in the Elster Conference Room. On May 21, McHugh and members of his staff visited the Naval Postgraduate School to learn more about research conducted by the university and to see firsthand the academic programs military officers take part in. McHugh and his staff began the afternoon by receiving a command brief from NPS President Dan Oliver and key faculty members, and were introduced to the development of the university's new cyber security degree program. Upon conclusion of the command and cyber operations brief, McHugh and his staff were joined by local Congressman Rep. Sam Farr and toured the university's Common Operational Research Environment (CORE) lab.

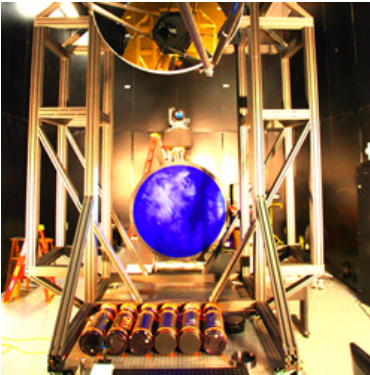
The CORE lab, an ongoing center of study under the university's Defense Analysis department, is predominantly attended by Army officers focusing on data, information technologies and theories applicable to irregular warfare.

McHugh and his staff ended the visit with a briefing on a current research project conducted by Navy Lts. Deak Childress and John Taylor that focuses using smartphone technology to collect and analyze information on improvised explosive device networks.

Mirror, Mirror on the Wall

Javier Chagoya

A series of six giant mirrors controlled by 156 actuators each and a series of gimbals make for an amazing sight. The Segmented Mirror Telescope (SMT) serves as a test bed for analyzing surface controls used in space. It's a marvel that resides in the basement of Halligan Hall.



U.S. Navy photo by Javier Chagoya

The integration of an interferometer, the white box atop a newly installed stage, is capable of conducting surface profiling of the mirrors just in front of it. The new system aids in the detection of primary mirror aberrations through segment phasing, center of curvature and the use of a 1 meter parabolic mirror for its return image. Adaptive Optics Research Scientist John Bagnasco says that a lot of time is spent on the sensitive fabrication and fine tuning of SMTs while on the ground and in some cases satellites may not be launched for five years, which skyrockets the cost of imaging satellites.

"If you can manipulate or control deformities on imaging satellites after they are launched instead of before then time and expense per project goes down," said Bagnasco. "So why not start out with a deformable mirror or a not so perfect surface and achieve a tolerance level that performs just as well as the current process."



U.S. Navy photo by MC1 Grant P. Ammon

NPS Hosts 9th Annual Acquisition Research Symposium

MC1 Grant P. Ammon

The Honorable Sean Stackley, Assistant Secretary of the Navy for Research, Development and Acquisition, delivers remarks on the second day of the Naval Postgraduate School's 9th annual Acquisition Research Symposium, held May 16 -17. Nearly 300 military officers, civilian acquisition officials, and representatives from the commercial defense industry gathered to focus on relevant acquisition research and promote defense spending affordability, as well as listen to talks and panel sessions lead by prominent leaders from the defense acquisition community.

Opening remarks at the symposium were delivered by The Honorable Frank Kendall III, Acting Under Secretary of Defense for Acquisition, Technology and Logistics, and other prominent acquisition professionals lead plenary and breakout sessions. Former Undersecretary of Defense for Acquisition, Technology, and Logistics Dr. Jacques Gansler lead the plenary session and breakout groups, while Rear. Adm. David Lewis, Program Executive Officer for ships and Rear. Adm. Kathleen Dussault, Director of Logistics Programs and Corporate Operations lead breakout groups focused on shipbuilding processes and logistics management during humanitarian assistance and disaster relief efforts.



U.S. Navy photo by MC1 Leonardo Carrillo

Alumnus Proposes Stronger Cooperation, Collaboration with China

Amanda D. Stein

On May 15, Naval Postgraduate School students, faculty and staff welcomed aeronautical engineering alumnus Dr. Fenton Carey, a retired naval officer, as he delivered a Secretary of the Navy Guest Lecture in King Auditorium. Carey is a Ph.D. graduate of NPS, and serves as a consultant, most recently on an initiative to create a joint China-United States leadership program. During the SGL, Carey spoke about what lessons he believed the U.S. could learn from, and potentially collaborate with, China, particularly in fields like education, energy research, health care and space exploration.

Carey pointed to China's stance on education as a valuable part of their identity, and one that the U.S. could benefit from understanding. The Chinese, he noted, invest time and money into attending leadership training before taking a position as a government, business or academic leader. The U.S., he said, should learn from their model. He pointed to the Naval Postgraduate School as an example of education in the United States helping future leaders in supporting the country's mission.

"We need to create the opportunities for our current and future leaders, much like what [NPS] does for our services, to learn about global leadership and innovation," Carey said. "We need to prepare our future leaders in academic disciplines and professions to work together to foster innovation and cooperation regardless of where they ultimately work."



Naval War College Monterey Graduates Honored for Academic Achievements

Javier Chagoya

Naval War College (NWC) Monterey graduate Lt. Robert Madden, right, is congratulated by NWC Chairman Fred Drake for earning "with highest distinction" by completing the Joint Professional Military Education program in the top five percent of his class. A total of thirteen students earned academic honors from the Naval War College Monterey Program for the second quarter of Academic Year 2012 and were honored during a ceremony early this month.

Earning "with Highest Distinction" by completing the program in the top five percent of their class were Lt. Robert Madden and Lt. Samuel Moffett. Earning "with Distinction" by completing the program in the top 15 percent of their class were Marine Corps Capt. Casey Benefield, Marine Corps Maj. Kevin Conlon, and Army Maj. Richard Nessel.

Other honorees were Lt. Eric Blomberg, who also earned "with Highest Distinction," Cmdr. William Bard, Army Maj. Edwin Clarke, Lt. Kyle Hiscock, Lt. Anthony Macaluso, Lt. Jason Nowell, Lt. Bradley Pate, and Army Maj. Jason Wamsley, also earned 'with distinction.'



U.S. Navy photo by Javier Chagoya



U.S. Navy photo by MC1 Leonardo Carrillo

NPS Hosts 44th Annual Mathletics Competition

MC1 Leonardo Carrillo

NPS Professor and former Astronaut Dan Bursch speaks to Monterey County students during his presentation for the 44th Annual Mathletics competition, May 12. For the second year in a row, the Naval Postgraduate School (NPS) hosted the competition that brings hundreds of "mathletes" from the local community for a day of competition.

"Math is the gatekeeper for future opportunities," said Dr. David Nickles, NPS' Director of Research Communications and Outreach during a break in the competition. "Without math, they can't get into other fields that can open doors to their future."

As a highlight to the experience, the mathletes were treated to a presentation from former Navy pilot and astronaut Bursch, who emphasized that without having a proclivity for mathematics he would not have been able to become an astronaut.

Nickles said that for the more than 350 kids from over 40 schools attending the competition, the importance of mathematics was not lost in them. Most of the competitors selected were among their respective school's best. "These kids know how important math is and how valuable this experience is for their future," he said.

Massive Online Wargame Launched for Members of NPS Community

MC1 Grant P. Ammon

NPS student U.S. Army Maj. Kimball Lewis, left, and Jeffery Rothal, a reference and instruction library at NPS' Dudley Knox Library (DKL), play the latest installment of Massive Multiplayer Online Wargame Leveraging the Internet (MMOWGLI) during a campus-wide launch of the game, May 11. This round focuses on Department of Defense energy consumption, and marks the second MMOGLI scenario. MMOWGLI is currently available for play by all members of the NPS community.

Inviting experts and non-experts alike from the military and civilian communities to work together to generate insights into complex, real-world challenges, MMOWGLI's theme focuses on energy consumption and reduction within the Navy and DOD, and gamers are invited to submit ideas that will be collaboratively developed into potential solutions or concepts of operation.

Through a process of gamer-submitted ideas and suggestions, potential solutions are continually developed, expanded upon or challenged by other players in the game. Researchers are hoping this collaboration between diverse parties will tap into the collective intellectual capital of a broader community interested in developing possible solutions, but may not have the opportunity to voice their opinions. Members of the NPS community that are interested in playing can create a user account at the following site:

<https://test.mmowgli.nps.edu/energy>.



U.S. Navy photo by MC1 Grant P. Ammon



U.S. Navy photo by MC1 Leonardo Carrillo

Robots in the Roses

MC1 Leonardo Carrillo

Attendees at the Robots in the Roses Research Fair, hosted by the Consortium For Robotics And Unmanned Systems Education And Research (CRUSER), observe a robot shooting and retrieving a basketball, May 10. Under Secretary of the Navy, The Honorable Robert O. Work served as guest of honor and offered opening remarks to attendees. Work chartered the CRUSER program and noted that research on unmanned systems was vitally important to the future of the navy.

The Robots in the Roses event featured various stations, showcasing some of the latest developments in unmanned systems research. The day's events included a rubber duck race across the newly remodeled Roman Plunge reflecting pool. CRUSER Director and Professor of Practice Jeffrey Kline noted the value of generating student excitement for research through interactive demonstrations and presentations.

"Robots in the Roses is really the opportunity to exchange ideas across all aspects of the employment of unmanned systems including sea, air, and land," Kline said. "We invite the students and their families so they can see exactly what they are working on. We also invite members of the community to attract new students to do research in these areas."



Under Secretary of the Navy Robert O. Work Addresses State of the Navy in SGL

Amada D. Stein



U.S. Navy photo by MC1 Leonardo Carrillo

Amelia D. Stein

Under Secretary of the Navy, The Honorable Robert O. Work paid a visit to his alma mater May 10 to deliver a State of the Navy Address in a special Secretary of the Navy Guest Lecture in King Auditorium. He began by commending the men and women of the Armed Forces for their commitment, noting that the U.S. Navy and Marine Corps are currently, arguably the best they have ever been in our nation's history.

Work touched on both fleet and manpower assets of the Navy, Marine Corps and Coast Guard, and how those assets will assist defense leaders in carrying forward a combat-ready and agile force. He noted that the strategy of tomorrow is to establish a global presence with a distinct focus on innovation capabilities, at a low coast, with an unobtrusive presence.

"We are a Navy and Marine Corps team that is built and ready for war, and we operate forward to preserve the peace," Work emphasized. "We are first a warfighting organization. The CNO has said it, and the Commandant has said it: warfighting first. We are built and ready for war, and we'd better never, ever lose our edge. But we will operate forward to preserve peace as we always have since 1798."



U.S. Navy photo by MC1 Leonardo Carrillo

Commander, Air Education and Training Command Explores Partnership Building in SGL

MC1 Leonardo Carrillo

Gen. Edward A. Rice Jr., Commander, Air Education and Training Command, speaks to NPS faculty, staff and students during a Secretary of the Navy Guest Lecture, May 8. During his lecture, Rice spoke about the importance of building new partnerships in an ever-evolving world.

Rice focused his presentation on the importance of the Asia Pacific region, saying that with Asia's dramatic transformation, sustained economic growth, and wide spread military modernization, the region has become of significant strategic interest to the United States. He emphasized the point by quoting a comment by Secretary of State Hillary Clinton in which she said, "Harnessing Asia's growth and dynamism is central to American economic and strategic interests and one of the most important tasks of American statecraft over the next decade."

Rice went on to detail how the Air Force is mobilizing to meet the challenges ahead, and the steps his command was taking to develop new strategies to meet the demands of these goals. Part of these strategies, he noted, was the education and training of professional Airmen, from the enlisted to the officer ranks, who would be ready to respond to demands of this evolving strategic outlook.



U.S. Navy photo by MC1 Grant P. Ammon

Experts Gather for 10th International Mine Warfare Technology Symposium

MC1 Grant P. Ammon

Chief of Naval Research and Director of Test Evaluation and Technology Requirements Rear Adm. Matthew Klunder delivers opening remarks during the 10th International Mine Warfare Technology Symposium, May 8. The two-day symposium will address a broad range of topics including the current status and future requirements of mine warfare technology.

"Mine warfare is a very critical topic, and this discussion is timely," noted Klunder in his opening remarks to the symposium. "Our [Chief of Naval Operations] thinks it's timely, and I'm supporting him in trying to help our international partners get those effective systems to our Sailors and Marines, and anyone else that is going to help us in our fight in the mine-countermeasure arena."

The symposium, hosted by NPS, the Office of the Chief of Naval Operations' Combat Ships directorate (N95), the Mine Warfare Association and the Consortium for Robotics and Unmanned Systems Education and Research will feature plenary speakers and afternoon break-out sessions to showcase basic scientific and emerging technology research with applications to the undersea environment.

Specialized sessions focusing on Littoral Combat Ship-centric mine warfare, advanced undersea warfare systems, mine warfare applications in maritime homeland defense, gliders, environmental research and developments, operational data flow and communications, and other related areas are scheduled throughout the symposium.

CSBA Senior Fellow speaks on Nuclear Weapons and Strategies

MC1 Rob Rubio

Senior Fellow at the Center for Strategic and Budgetary Assessments Barry Watts presented a lecture entitled "Strategy, Precision Strike, and a Second Nuclear Age" to the NPS community on May 2. He noted that good strategies, the majority of the time, have three specific pieces: diagnosis, guiding policy and coherent actions.

"Strategy is very hard and you don't really know how things will turn out," he said. "You have to be prepared to adjust to changes in strategy as things occur." He touched upon various weapons from WW II, the Vietnam War and Operation Desert Storm, and how the accuracy and precision of each type has evolved over time. When speaking about long range precision strikes, he noted that the U.S. has been primarily the only one capable of such actions, mostly due to the fact that there has not been any peer competition.

It was noted that China's economy may surpass the U.S. by 2020 and that they are developing capabilities to keep the U.S. at an arm's length. He concluded his presentation by speaking about traditional power projection and the need to maintain forward bases. "The intelligence community and general conventional wisdom is correct," he remarked. "You don't even have to go back and look."





U.S. Navy photo by MC1 Rob Rubio



Photo courtesy of the New York Stock Exchange/Ben Hider

NPS Alumni Hit Wall Street

Dale Kuska

A select group of Naval Postgraduate School graduates applauded the opening bell while touring the floor of the New York Stock Exchange (NYSE) during a special alumni event, April 27.

Hosted by NPS alumnus Marshall N. Carter ('70), Chairman of the Board for NYSE Group also known as the New York Stock Exchange, the lucky graduates were treated to a personal tour of the stock exchange facilities, where the group was fortunate enough to witness the action of the opening trading bell.

"Having graduated from NPS in 1970, but still using the ORSA [Operations Research/Systems Analysis] knowledge on a daily basis, it was fun to host a very diverse group of NPS grads from all curricula at the NYSE. I think the floor tour showed them that we are at the front of IT technology," Carter said.

"Marsh Carter was a tremendous host for our NPS event at the stock exchange, and I think he really enjoyed hearing about the backgrounds and experiences of such a wide range of fellow alumni in attendance," said Director of Alumni Relations Kari Miglaw. "He invited us back for a future event, and we will definitely be taking him up on the offer."

Cebrowski Institute Hosts Lecture On Smartphone Security

MC1 Leonardo Carrillo

David Wheeler, Computer scientist and Owner of SecureComm, speaks to Naval Postgraduate School students and faculty during a Cebrowski Institute brown-bag lecture, April 23. Wheeler spoke about the increasing security concerns of smartphones as they move beyond communication devices for personal lives and into government and DOD functions.

Wheeler said that the smartphone market is growing at a rapid pace and similarly, so is the security market. With that, he said, so are security vulnerabilities. He added that statistics from the national vulnerability database showed an increase in security vulnerabilities of over 200 percent since last year's report, which demonstrates the significant growth in security vulnerabilities in smartphone use.

"We know it's growing, we know it's a problem, and we also know that people aren't addressing it in an appropriate way," said Wheeler. "I think that there is a lack of awareness and a lack of development in this market that creates a lot of problems."

Wheeler went over possible approaches to creating effective changes in addressing security problems and held an open discussion with attendees. He went over known attacks, high-level threats and strategies on preparing for Trojan attacks and learning from the evolving market. "We have all these capabilities," said Wheeler, "but the question is, how effective are they against the malware that's

out there and how effective are we at recognizing that?"



U.S. Navy photo by MC1 Rob Rubio

Indonesian Defense University Commandant Attends DRMI Course

MC1 Rob Rubio

Air Vice Marshal Dr. U.H. Harahap, M.Si., Commandant for the Postgraduate School of Defense and Strategy Studies at the Indonesian Defense University (IDU), meets with NPS President Dan Oliver, April 24. The IDU is a recently established university that prepares future Indonesian military leaders in the field of strategic environments. Harahap was recently promoted to his current position as the Commandant of this division of IDU.

Harahap traveled to NPS to attend the two-week long Indonesian Defense Management Course held through the Defense Resource Management Institute (DRMI), and presented a plaque to Oliver while he was on the campus. During his meeting with Oliver, he expressed his gratitude for the opportunity for the Indonesian students to come study at NPS, and his wish for the continuation of the NPS/IDU cooperation and partnership.

Harahap noted that NPS was a significant resource to IDU, especially because his is such a new university. He remarked, "We cooperate with other universities abroad, and also welcome the help that NPS provides with the curriculum, lecturers, and how to build the curriculum itself. We are very thankful for that help, I hope the cooperation between IDU and NPS will continue."

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